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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Natalie Rose NOEL

Serial No.: 10/090,889

Filed: Mar. 4, 2002

**For: Breast Restraint for Athletic
Activity**

Art Unit: 3765

Examiner: Gloria M HALE

Tel: (703) 308-1282

Notice of Appeal Received by USPTO:

Aug. 5, 2004

**Mail Stop Appeal Brief- Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

APPEAL BRIEF

This paper is an appeal brief filed under 37 C.F.R. § 1.192 pursuant to a Notice of Appeal mailed on Aug. 3, 2004, and received by the USPTO on Aug. 5, 2004. Consideration of this Appeal Brief is earnestly solicited.

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(1) REAL PARTY IN INTEREST:

The Real Parties in Interest for this case are Natalie Rose Noel and Dane C. Butzer, Applicants.

(2) RELATED APPEALS AND INTERFERENCES:

No other appeals or interferences are related to this appeal.

(3) STATUS OF CLAIMS:

Claims 1 to 26 are pending. Claims 1, 4, 10, 13, 19, 21 and 23 are the independent claims. All pending claims were rejected as being obvious under 35 U.S.C. § 103(a) over U.S. Patent No. 2,723,396 (Stack) in view of U.S. Patent No. 3,968,803 (Hyman). All pending claims are appealed.

(4) STATUS OF AMENDMENTS:

No amendment has been filed subsequent to the appealed final rejection.

(5) SUMMARY OF INVENTION:

Overview: This invention relates to a restraint and method for reducing discomfort experienced by female athletes. In particular, the invention relates to a restraint and method for reducing breast movement while exercising or performing other activities.

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Women often experience discomfort while exercising due to excessive breast movement, for example while running. This discomfort is particularly pronounced for women with larger breasts. In addition, excessive breast movement can actually break down breast tissue over long periods of regular exercise or other physical activity. These matters are of serious concern to both amateur and professional female athletes.

Manufacturers of sports apparel have attempted to address this problem with sports bras. However, these bras have proven to provide less than adequate relief. If the bras are of a suitably stiff material to reduce unwanted breast movement, they tend to be uncomfortable. Manufacturers have attempted to address this problem by making sports bras out of an elastic material such as Lycra®. However, for some women, especially women with larger breasts, this elasticity can actually add to unwanted breast movement. For other women, elastic sports bras simply do not provide adequate relief unless they are so elastic as to be uncomfortable. Even with such strong elastics, adequate relief may not be realized.

The invention addresses these issues through a restraint including a strap that fits across the tops of the person's breasts, under the person's arms, and around the person's back, and that also includes an adjustable fastener for fastening the strap together. At least part of the strap is sufficiently elastic so as to ensure a close fit, but is also sufficiently inelastic so that the restraint avoids contributing to movement of the breasts during exercising or other activities.

It has been found that having a sufficiently close fitting strap across the tops of the person's breasts provides great relief from excessive breast movement. In addition, because the

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strap is sufficiently inelastic, the invention does not exacerbate the problem of excessive breast movement. This is in contrast to conventional overly-elastic sports bras.

Furthermore, it has been found that the simplicity of the restraint makes it much easier to fit and to use. This is in contrast to the difficulty of properly fitting a sports bra.

Examples (with references to specification): Figure 1 shows a restraint 4 according to the invention in the form of a strap that fits across the tops of the person's breasts, under the person's arms, and around the person's back, and that also includes an adjustable fastener for fastening the strap together. At least part of the strap is sufficiently elastic so as to ensure a close fit, but is also sufficiently inelastic so that the restraint avoids contributing to movement of the breasts during exercising or other activities.

Not Limiting: This summary of the invention is intended to be illustrative, not limiting. The specification includes further material that might indicate additional examples and scope for the invention.

(6) ISSUES:

The following issue is presented for appeal: Whether the pending claims are patentable under 35 U.S.C. § 103(a) over U.S. Patent No. 2,723,396 (Stack) in view of U.S. Patent No. 3,968,803 (Hyman).

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(7) GROUPING OF CLAIMS:

All pending claims were rejected together in a single group. Applicants respectfully submit that the claims of the group do not stand or fall together.

As will be discussed in section (8) ARGUMENTS, independent claims 19 and 21 include the limiting transitional phrase "consisting essentially of." Therefore, claims 19 and 21 and their dependent claims are of significantly narrower scope than the other claims and are separately patentable. Accordingly, Applicants respectfully request that claims 19 and 21 and their dependent claims be considered separately from the other pending claims.

Furthermore, as will also be discussed in section (8) ARGUMENTS, the pending method claims recite use of a restraint to reduce breast movement while a person exercises. Even if the restraint itself is found to be anticipated or obvious, Applicants respectfully submit that this use is both novel and unobvious over the art of record. Thus, the method claims are separately patentable. Accordingly, Applicants respectfully request that the method claims be considered separately from the apparatus (i.e., "restraint") claims.

For these reasons, Applicants respectfully request that the claims be grouped together as follows:

- (1) independent claims 1 and 4 and their dependent claims;
- (2) independent claims 10, 13 and 23, and their dependent claims;
- (3) independent claim 19 and its dependent claims; and
- (4) independent claim 21 and its dependent claims.

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(8) ARGUMENTS:

Overview

Applicants respectfully traverse the rejection in the outstanding final Office Action of claims 1 to 26 as being obvious under 35 U.S.C. § 103(a) over U.S. Patent No. 2,723,396 (Stack) in view of U.S. Patent No. 3,968,803 (Hyman).

Independent claims 1 and 4 and their dependent claims: Claim 1 is exemplary of these claims and is reproduced below:

1. A restraint that reduces breast movement while a person exercises, comprising:
 - a strap that fits across tops of the person's breasts, under the person's arms, and around the person's back; and
 - an adjustable fastener that is for fastening the strap together and that is disposed to be positioned at the person's back;
 - wherein at least part of the strap is sufficiently elastic so as to ensure a close fit, but is also sufficiently inelastic so that the restraint avoids contributing to movement of the breasts during exercising.

The applied Stack and Hyman references do not disclose or suggest the foregoing features of claim 1, at least with respect to "a strap that fits across tops of the person's breasts" and "at least part of the strap [being] sufficiently elastic so as to ensure a close fit, but ... also sufficiently inelastic so that the restraint avoids contributing to movement of the breasts during exercising."

First, Stack does not teach "a strap that fits across tops of the person's breasts." Stack instead shows a "body muscle supporter ... for position around a portion of the body of the wearer." Stack, col. 1, lines 49 to 52. As clearly shown in Figures 1 and 3 of Stack, this

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supporter is not a strap that fits across tops of a person's breast, but rather a wrap that extends well below the bottoms of a person's breasts.

Furthermore, Stack teaches use of "a cup member ... which is similar to a brassiere cup utilized by women." Stack, col. 2, lines 10 to 13. Stack teaches that this cup member "may be constructed of any suitable material such as cotton or the like and this prevents ... compression of the breasts while wearing the device. Stack, col. 2, lines 24 to 28. To Applicants', this appears to teach directly against using an elastic strap across the tops of a person's breasts, which of course would compress the breast tissue to at least some degree.

Second, Stack fails to teach that "at least part of the strap is sufficiently elastic so as to ensure a close fit, but is also sufficiently inelastic so that the restraint avoids contributing to movement of the breasts during exercising." Applicants acknowledge that this is a broad description of the required elasticity. Nonetheless, one skilled in the art of designing athletic wear would be able to determine whether or not a particular piece of elastic met this criteria. Stack does not teach this feature, at least because Stack is not concerned with breast movement, but rather with supporting body muscles and the body. See Stack, col. 1, lines 15 to 18.

Hyman does not remedy the foregoing deficiencies of Stack.

First, Hyman also does not teach "a strap that fits across tops of the person's breasts." Hyman instead shows a surgical chest dressing, for example for use after a mastectomy. See Hyman, col. 1, lines 5 to 10. As clearly shown in Figures 3 and 4 of Hyman, this dressing is not a strap that fits across tops of a person's breast, but rather a dressing that covers both the top and bottom of a person's breasts.

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Second, Hyman fails to teach that “at least part of the strap is sufficiently elastic so as to ensure a close fit, but is also sufficiently inelastic so that the restraint avoids contributing to movement of the breasts during exercising.” In fact, Hyman explicitly teaches that in a preferred embodiment, its “flexible band 10 [is] formed primarily from a stretchable, but *non-elastic* fabric or material.” Hyman, col. 4, lines 9 to 12 (emphasis added).

For at least the foregoing reasons, the rejection of claims 1 and 4 and their dependent claims under § 103 over Stack and Hyman is believed to be improper.

Independent claims 10, 13 and 23, and their dependent claims: Claim 10 is exemplary of these claims and is reproduced below:

10. A method that reduces breast movement while a person exercises, comprising:
fitting a strap across tops of the person’s breasts, under the person’s arms, and around the person’s back;
fastening the strap together with an adjustable fastener; and
positioning the adjustable fastener at the person’s back;
wherein at least part of the strap is sufficiently elastic so as to ensure a close fit, but is also sufficiently inelastic so that the restraint avoids contributing to movement of the breasts during exercising.

The arguments presented above with respect to claim 1 are equally applicable to this claim.

Furthermore, the pending method claims recite a new use of a restraint to reduce breast movement while a person exercises. Even if the restraint itself is found to be anticipated or obvious, Applicants respectfully submit that this use is both novel and unobvious over the art of record. In support of this argument, Applicants note that the word “exercise” does not even appear in Stack or Hyman.

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For at least the foregoing reasons, the rejection of claims 10, 13 and 23, and their dependent claims under § 103 over Stack and Hyman is believed to be improper.

Independent claim 19 and its dependent claims: Independent claim 19 is reproduced below:

19. A restraint that reduces breast movement while a person exercises, consisting essentially of:
a single strap that fits across tops of the person's breasts, under the person's arms, and around the person's back; and
an adjustable fastener that is for fastening the strap together;
wherein at least part of the strap is sufficiently elastic so as to ensure a close fit, but is also sufficiently inelastic so that the restraint avoids contributing to movement of the breasts during exercising.

The arguments presented above with respect to claim 1 are equally applicable to this claim.

Furthermore, independent claim 19 includes the limiting transitional phrase "consisting essentially of." This transitional phrase is discussed at MPEP § 2111.03, the relevant portion of which is reproduced below (citations omitted):

The transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention. ... "A 'consisting essentially of' claim occupies a middle ground between closed claims that are written in a 'consisting of' format and fully open claims that are drafted in a 'comprising' format." ... For the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising." ... If an applicant contends that additional steps or materials in the prior art are excluded by the recitation of "consisting essentially of," applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention

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Applicants have used the transitional phrase “consisting essentially of” as opposed to simply “consisting of” so as to encompass addition or inclusion of non-functional and/or inherent components in the scope of claim 19. For example, the claim is meant to encompass variations that include non-functional labels and tags (e.g., a manufacturer’s or distributor’s brand tag), as well as inherent elements such as stitching or adhesive used to connect the fastener to the strap, to prevent fraying at the ends of the strap, etc.

Applicants submit that claim 19 includes a clear indication of the basic and novel characteristics of the embodiment recited by that claim, namely a *single* strap and adjustable fastener arranged as recited by the claim. This single strap is believed to be novel and inventive in that Applicants are unaware of anything in the prior art that shows that such a single fastened strap would even stay in place on its own, let alone function to reduce breast movement while a person exercises or performs some other activity as recited by claim 19.

The “single strap” embodiment recited by claim 19 precludes incorporation of the restraint into a bra or the like. However, this limitation is not intended to preclude use of the restraint with a separate unattached bra or the like, as indicated by dependent claim 20. Furthermore, nothing in claim 19 and its dependent claims and in this discussion is intended to affect the scopes of claims 1 to 18 and 23 to 26 in any way whatsoever.

Important characteristics of the single strap embodiment recited by claim 19 include simplicity of construction, manufacture, and use, and ease of adjustability. Addition of other components such as other straps would significantly and adversely change these characteristics.

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Applicants submit that the “single strap” element of claim 19, in combination with the transitional phrase “consisting essentially of,” clearly distinguishes the subject matter of that claim from Stack and Hyman.

Even if Stack and Hyman are interpreted as teaching “a strap that fits across tops of [a] person’s breasts” (a position that Applicants do not admit), both Stack and Hyman also clearly include portions that extend below tops of a person’s breasts. Thus, Stack and Hyman include elements beyond “a restraint ... consisting essentially of ... a single strap that fits across tops of the person’s breasts, under the person’s arms, and around the person’s back” and “an adjustable fastener that is for fastening the strap together.” Furthermore, Hyman’s straps 60 and 62 clearly extend beyond the scope of this claim language.

For at least the foregoing reasons, the rejection of claim 19 and its dependent claims under § 103 over Stack and Hyman is believed to be improper.

Independent claim 21 and its dependent claims: Independent claim 21 is reproduced below:

21. A method that reduces breast movement while a person exercises, consisting essentially of:
fitting a single strap across tops of the person’s breasts, under the person’s arms, and around the person’s back; and
fastening the strap together with an adjustable fastener;
wherein at least part of the strap is sufficiently elastic so as to ensure a close fit, but is also sufficiently inelastic so that the restraint avoids contributing to movement of the breasts during exercising.

All of the arguments presented above with respect to claims 10, 13 and 23, and their dependent claims apply to this claim. Applicants further note that this claim also uses the

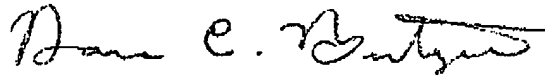
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more restrictive transitional phrase "consisting essentially of," thereby limiting the scope of steps that could infringe the claim. Neither Stack nor Hyman is believed by Applicants to teach such steps. Accordingly, the rejection of claim 21 and its dependent claims under § 103 over Stack and Hyman is believed to be improper.

CLOSING:

Applicants respectfully request allowance of this case. Applicants' undersigned attorney can be reached at (614) 486-3585. All correspondence should continue to be directed to the address indicated below.

Respectfully submitted,



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Dated: December 5, 2004

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1 (9) APPENDIX:

2

3 A copy of the claims involved in this appeal follows:

4

5 1. (Previously Presented) A restraint that reduces breast movement while a person
6 exercises, comprising:7 a strap that fits across tops of the person's breasts, under the person's arms, and
8 around the person's back; and9 an adjustable fastener that is for fastening the strap together and that is disposed to
10 be positioned at the person's back;11 wherein at least part of the strap is sufficiently elastic so as to ensure a close fit,
12 but is also sufficiently inelastic so that the restraint avoids contributing to movement of the
13 breasts during exercising.

14

15 2. (Original) A restraint as in claim 1, wherein the strap is at least one inch wide
16 at a portion that fits across the tops of the breasts.

17

18 3. (Original) A restraint as in claim 2, wherein the strap is all of a uniform width.

19

20 4. (Previously Presented) A restraint that reduces breast movement while a person
21 exercises, comprising:

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1 a strap that fits across tops of the person's breasts, under the person's arms, and
2 around the person's back; and

3 an adjustable fastener for fastening the strap together;

4 wherein at least part of the strap is sufficiently elastic so as to ensure a close fit,
5 but is also sufficiently inelastic so that the restraint avoids contributing to movement of the
6 breasts during exercising; and

7 wherein the strap is shaped so as to be wider at a portion that fits across the tops
8 of the breasts.

9

10 5. (Original) A restraint as in claim 1, wherein the strap is all of a single elastic
11 material.

12

13 6. (Previously Presented) A restraint as in claim 1, wherein the fastener is a hook-
14 and-loop fastener.

15

16 7. (Original) A restraint as in claim 1, wherein the restraint is adapted to be worn
17 in addition to a bra.

18

19 8. (Original) A restraint as in claim 1, wherein the strap is incorporated into a bra.

20

21 9. (Original) A restraint as in claim 8, wherein the bra is a sports bra.

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1 10. (Previously Presented) A method that reduces breast movement while a
2 person exercises, comprising:
3 fitting a strap across tops of the person's breasts, under the person's arms, and
4 around the person's back;
5 fastening the strap together with an adjustable fastener; and
6 positioning the adjustable fastener at the person's back;
7 wherein at least part of the strap is sufficiently elastic so as to ensure a close fit,
8 but is also sufficiently inelastic so that the restraint avoids contributing to movement of the
9 breasts during exercising.

10
11 11. (Original) A method as in claim 10, wherein the strap is at least one inch wide
12 at a portion that fits across the tops of the breasts.

13
14 12. (Original) A method as in claim 11, wherein the strap is all of a uniform
15 width.

16
17 13. (Previously Presented) A method that reduces breast movement while a
18 person exercises, comprising:
19 fitting a strap across tops of the person's breasts, under the person's arms, and
20 around the person's back; and
21 fastening the strap together with an adjustable fastener;

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1 wherein at least part of the strap is sufficiently elastic so as to ensure a close fit,
2 but is also sufficiently inelastic so that the restraint avoids contributing to movement of the
3 breasts during exercising; and

4 wherein the strap is shaped so as to be wider at a portion that fits across the tops
5 of the breasts.

6

7 14. (Original) A method as in claim 10, wherein the strap is all of a single elastic
8 material.

9

10 15. (Previously Presented) A method as in claim 10, wherein the fastener is a
11 hook-and-loop fastener.

12

13 16. (Original) A method as in claim 10, further comprising wearing a bra.

14

15 17. (Original) A method as in claim 10, wherein the strap is incorporated into a
16 bra.

17

18 18. (Original) A method as in claim 17, wherein the bra is a sports bra.

19

20 19. (Previously Presented) A restraint that reduces breast movement while a
21 person exercises, consisting essentially of:

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1 a single strap that fits across tops of the person's breasts, under the person's arms,
2 and around the person's back; and
3 an adjustable fastener that is for fastening the strap together;
4 wherein at least part of the strap is sufficiently elastic so as to ensure a close fit,
5 but is also sufficiently inelastic so that the restraint avoids contributing to movement of the
6 breasts during exercising.

7

8 20. (Previously Presented) A restraint as in claim 19, wherein the restraint is
9 adapted to be worn in addition to a bra.

10

11 21. (Previously Presented) A method that reduces breast movement while a
12 person exercises, consisting essentially of:

13 fitting a single strap across tops of the person's breasts, under the person's arms,
14 and around the person's back; and
15 fastening the strap together with an adjustable fastener;
16 wherein at least part of the strap is sufficiently elastic so as to ensure a close fit,
17 but is also sufficiently inelastic so that the restraint avoids contributing to movement of the
18 breasts during exercising.

19

20 22. (Previously Presented) A method as in claim 21, wherein the restraint is
21 adapted to be worn in addition to a bra.

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1 23. (Previously Presented) A method comprising the step of
2 using a device to reduce breast movement while a person exercises, said device
3 including a strap that fits across tops of the person's breasts, under the person's arms, and around
4 the person's back, and an adjustable fastener that is for fastening the strap together and that is
5 disposed to be positioned at the person's back, wherein at least part of the strap is sufficiently
6 elastic so as to ensure a close fit, but is also sufficiently inelastic so that the restraint avoids
7 contributing to movement of the breasts during exercising or other activities.

8
9 24. (Previously Presented) A method as in claim 23, wherein said step of using
10 further comprises the steps of putting the device on and exercising while wearing the device.

11
12 25. (Previously Presented) A method as in claim 24, wherein the step of putting
13 the device on further comprises:

14 fitting the device across tops of the person's breasts, under the person's arms, and
15 around the person's back; and

16 fastening the strap together with an adjustable fastener.

17
18 26. (Previously Presented) A method as in claim 23, wherein the device consists
19 essentially of the strap and the adjustable fastener.